In the Claims:

The claims are not amended in this response. New claims 4 and 5 are added.

1. (original) A method of correcting loss and dispersion distortions in cable measurements, comprising the steps of:

(a) measuring said cable in a frequency domain to obtain a reflected response of a transmitted signal;

(b) collecting a series of fractional sinusoid components of said reflected response from predetermined points along said cable to provide a superposed function;

(c) dividing said superposed function by a sent signal function to provide a normalized function; and

(d) extracting from said normalized function said fractional sinusoid components by calculating a real value at each of said predetermined points thereby removing attenuation distortion and dispersion distortion.

2. (original) A method of correcting loss and dispersion distortions in cable measurements in accordance with claim 1, further comprising the step of displaying a plot of said extracted fractional sinusoid components.

3. (original) A method of correcting loss and dispersion distortions in cable measurements in accordance with claim 1

wherein said predetermined points along said cable are determined in accordance with the period of a maximum probing frequency.

4. (new) A method of correcting loss and dispersion distortions in cable measurements in accordance with claim 3 wherein said predetermined points along said cable are determined in accordance with the period of a maximum probing frequency such that distance between said predetermined points is chosen to be the distance the signal travels along the cable during one period of the said maximum probing frequency.

5. (new) A method of correcting loss and dispersion distortions in cable measurements, comprising the steps of:

transmitting a test signal into said cable;

measuring said cable in a frequency domain to obtain a reflected response of the transmitted test signal;

collecting a series of fractional sinusoid components of said reflected response from predetermined points along said cable to provide a superposed function, wherein said predetermined points are chosen such that a distance between ones of said predetermined points is chosen to be substantially the distance the test signal travels along the cable during one period of a maximum probing frequency of the test signal;

dividing said superposed function by a function of the test signal to provide a normalized function;

extracting from said normalized function said fractional sinusoid components by calculating a real value at each of said predetermined points thereby removing attenuation distortion and dispersion distortion; and

displaying a plot of said extracted fractional sinusoid components to thereby provide a representation of measurements with attenuation distortion and dispersion distortion removed.